

OIB - C-130H Hercules #439 04/09/15 Science Report

Aircraft:

[C-130H Hercules #439](#) ([See full schedule](#))

Date:

Thursday, April 9, 2015

Mission:

OIB

Mission Location:

Kangerlussuaq, Greenland

Mission Summary:

Mission: K-EGIG-Summit (priority: baseline)

This mission was designed to accomplish a number of high-priority tasks. First, we re-fly the van den Broeke ?K-Transect? in the Russell Glacier catchment, consisting of several sites where comprehensive glaciological measurements are collected annually. We also fly the EGIG traverse line, which is expected to be occupied as part of the CryoVex effort in spring 2014. We over-fly the IceSat-1 track 412 Summit calibration site, and we fly two IceSat-2 groundtracks in the same area near Summit, with the expectation that these will become regular calibration sites as well. Finally we extend the coverage of the Jakobshavn basin upstream along IceSat-1 tracks, to capture continued inland progression of thinning there.

Mildly unstable weather continues over southern Greenland, with no major organized weather systems exerting much influence over the area. This synoptic situation, with its light winds, tends to favor the development of fog, and we indeed saw widespread fog along both the southwest and southeast coasts of Greenland in the morning weather satellite images, with some of it reaching fairly far inland. The baseline priority "K-EGIG-Summit" flightline stays well inland for the most part, however, so we selected this one as the most suitable mission given the conditions. We encountered almost completely clear conditions over the entire flightline, including the K-Transect sites.

All sensors operated normally today, with no major problems. We did see some minor radio-frequency interference with ATM3 (wide scanner), of a character consistent with HF radio interference. However neither HF radio aboard the aircraft was operating during the times we observed the interference. Investigation continues into the cause.

We flew a ramp pass, for instrument calibration purposes, at 2000' AGL.

Data volumes:

ATM: 27 Gb

CAMBOT: 87 Gb

DMS: 142 Gb

Ku-Band Radar: 213 Gb

MCoRDS: 2.8 Tb

Narrow Swath ATM: 35 Gb

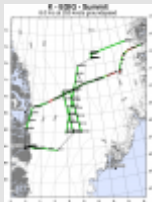
NSERC Onboard Data: TBD

Snow Radar: 213 Gb

total data collection time: 7.9 hrs

Images:

Map of K-EGIG-Summit Flight



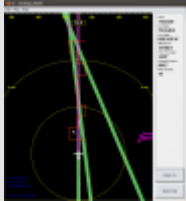
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Summit Station, Greenland



[Read more](#)

Precise navigation around Summit Station, Greenland



[Read more](#)

Submitted by:
John Sonntag on 04/09/15
Related Flight Report:

C-130H Hercules #439 04/09/15

Flight Number:
K-EGIG Summit
Payload Configuration:
OIB
Nav Data Collected:
No
Total Flight Time:
8.3 hours
Submitted by:
Luci Crittenden on 04/09/15
Flight Segments:

From:	BGSF	To:	BGSF
Start:	04/09/15 10:15 Z	Finish:	04/09/15 18:30 Z
Flight Time:	8.3 hours		
Log Number:	151002	PI:	Michael Studinger
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	Successful completion of 2nd science flight out of Kangerlussuaq. Guest journalist on board again today.		

Flight Hour Summary:

					151002
Flight Hours Approved in SOFRS					334.4
Total Used					297.6
Total Remaining					36.8
151002 Flight Reports					
Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
03/12/15	ATF	Check	1.5	1.5	332.9
03/13/15	PTF - GPS	Check	2	3.5	330.9
03/13/15	PTF - Radar #1	Check	0.8	4.3	330.1

03/13/15 - 03/14/15	PTF - Radar #2	Check	4.5	8.8	325.6
03/16/15	PTF - Radar #3	Check	2.4	11.2	323.2
03/17/15	Transit	Transit	7.8	19	315.4
03/19/15	Nansen Gap	Science	7.4	26.4	308
03/24/15	Sea Ice - Zigzag East	Science	8.2	34.6	299.8
03/25/15	Sea Ice North Pole Transect ? Thule	Science	8.2	42.8	291.6
03/26/15	Sea Ice - Laxon Line	Science	9.2	52	282.4
03/27/15 - 03/28/15	Sea Ice - East Beaufort Sea	Science	8.2	60.2	274.2
03/29/15 - 03/30/15	Sea Ice - North Beaufort Loop	Science	8.9	69.1	265.3
03/30/15 - 03/31/15	Sea Ice - SIZRS Zigzag	Science	8.1	77.2	257.2
04/01/15	Sea Ice - South Basin Transect	Science	8.8	86	248.4
04/03/15	Sea Ice - South Canada Basin	Science	7.4	93.4	241
04/06/15	OIB Transit from BGTL-BGSF	Transit	3.3	96.7	237.7
04/08/15	Helheim-Kangerdlussuag	Science	8	104.7	229.7
04/09/15	K-EGIG Summit	Science	8.3	113	221.4
04/10/15	Southeast Glaciers 01	Science	8	121	213.4
04/11/15	East Glaciers 01	Science	8	129	205.4
04/13/15	Southeast Coastal	Science	7.7	136.7	197.7
04/14/15	Helheim-Kangerdlussuag Gap B	Science	7.9	144.6	189.8
04/17/15	Umanaq B	Science	7.5	152.1	182.3
04/18/15	Southwest Coast A	Science	8.1	160.2	174.2
04/20/15	Penny 01	Science	6.3	166.5	167.9
04/21/15	Thomas-Jakobshaven 01	Science	8.7	175.2	159.2
04/22/15	Southeast Flank 01	Science	7.6	182.8	151.6
04/23/15	Jakobshavn-Eqip-Store	Science	9.2	192	142.4
04/24/15	Geikie 02	Science	8.3	200.3	134.1
04/25/15	Jakobshaven 02/ Mop Up	Science	6.9	207.2	127.2
04/27/15	Southwest Coastal B	Science	8	215.2	119.2
04/28/15	Southeast Glaciers 02	Science	7	222.2	112.2
04/29/15	TRANSIT BGSF-BGTL	Transit	2.5	224.7	109.7
04/30/15	ATM Laser Repair Checkout	Science	2.3	227	107.4
05/01/15	NW Coastal A	Science	7.2	234.2	100.2
05/05/15	IceSat-2 North / CryoSat-2 SARIn	Science	8.2	242.4	92
05/06/15	North Glaciers 01	Science	8.2	250.6	83.8
05/07/15	Devon-Barnes 01	Science	7.8	258.4	76
05/08/15	Zigzag West	Science	7.2	265.6	68.8
05/11/15	Northwest Glaciers 01	Science	7.8	273.4	61
05/12/15	North-Central Gap 02	Science	8.1	281.5	52.9
05/15/15	North-Central Gap 01	Science	7.3	288.8	45.6
05/21/15	Transit - Thule to Bangor, ME	Transit	6.5	295.3	39.1
05/22/15	Transit - Bangor, ME to WFF	Transit	2.3	297.6	36.8

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

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